



Riding SMART!

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Join SMARTER

Individual dues

\$25/annually
\$65/3 years

Joint-members dues (2-person household)

\$35/annually
\$90/3 years

Organizational dues

\$100/annually

President's News & Views

Hello SMARTER Members and guest recipients of this issue of *Riding Smart*. The COVID-19 pandemic has certainly disrupted our lives in unique and intense ways. The SMARTER Board of Directors knows that some members and their families are facing, and have faced, significant hardships. We all have had to alter our normal lives in significant ways and worry about our personal safety and the safety of the people we love.



We recently found this website with a compiled list of tips for ways to take action to support others. Even at this time when there seems to be a light at the end of the tunnel, we can take action to contribute to rebuilding our sense of strength and control.

https://optionb.org/advice/how-to-support-others-during-the-covid-19-pandemic?gclid=Cj0KCQiA5bz-BRD-ARIsABjT4nh4hIhoMIWLpb8wiIMxX0XvCFzNVMKY02avb4PF8rg7ATsihU4cEckaAm5SEALw_wcB

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The biggest impact on normal SMARTER operations during 2020 has been the substitution of face-to-face Board of Directors meetings with increased telephone and electronic communication. This newsletter will serve as our final 2020 *Riding Smart* and the first edition for 2021. We have a large section providing a summary of some of the major research topic areas followed by two shorter sections describing 2020 website updates and a section with a brief report on work in progress.

We encourage those who desire a good summary of the relevant research, and our interpretation of what motorcyclist safety countermeasures the research indicates should be implemented, to carefully review “Discussions of the Implications of the Research.” Email us your comments at smarterusa@gmail.com or post your reactions on our Facebook page.

Here at SMARTER we are more than ready to put 2020 behind us and look forward to a brighter 2021 for all.

Happy New Year,

Dan

Guest Newsletter Recipients



Riding Smart is our member newsletter. We have a small list of “courtesy” recipients who regularly receive our newsletter. In addition to our members and courtesy recipients, we have sent this edition to many individuals associated with motorcyclist safety. After reviewing our mission and browsing our website, please consider becoming a member. If there is a reason you would like to receive *Riding Smart* but can’t become a member, let us know and we will consider adding your name to our list of courtesy recipients. Email us at smarterusa@gmail.com

Our Mission

The mission of SMARTER has certainly evolved since our incorporation in 2007. In the early years we were primarily focused on gathering helmet effectiveness research and sharing that research with legislative decision makers in our incorporation state of Michigan. SMARTER membership and influence are now nationwide, and our research postings cover all aspects of motorcyclist safety. Each member, and others interested in motorcyclist safety, can help us meet our mission by regularly reviewing the research and sharing links and information with motorcyclists and motorcyclist safety advocates in your personal and professional circles.



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We know that intensive long-term, aggressive, and national PR campaigns can work as evidenced by Click It or Ticket and Don't Drink and Drive campaigns aimed at car drivers. The effectiveness of such national programs is greatly enhanced when combined with strict enforcement. In fact, without the enforcement component such programs generally are not effective or the effectiveness is drastically reduced. Limited, sporadic, and regional PR campaigns, without an enforcement component, usually lack any demonstrable result. Yet if motorcyclist safety programs initiate any countermeasure related to alcohol, they are usually exactly this type of ineffective campaign.

Rarely does a state have any motorcyclist specific alcohol enforcement program and in-fact, the motorcyclist rights organizations have been successful in getting state laws passed to prevent such programs.

Based on the available research, money should not be allocated to PR campaigns unless the campaign is connected to enforcement and enough dollars are committed for the campaign to be intensive and long-term. State laws restricting enforcement efforts should not be implemented and laws already in effect should be repealed.

Conspicuity

The effectiveness of conspicuity enhancements for motorcycles and riders can be summed up as "it depends." The bulk of the research does, however, indicate enhanced conspicuity may reduce crash risk. Color, light and contrast are the components to conspicuity. Forming a light triangle with the addition of two low mounted amber or yellow lights combined with the motorcycle's headlight seems indicated by the research.



SMARTER recommends riders make these modifications to their bikes. A national (international) standard frontal light design should be implemented, and all new motorcycles should come equipped with a light design meeting the national standard. When enough motorcycles on the road have this frontal light design, we may have some hope that drivers will learn to recognize this unique forward light arrangement as motorcycle and rider.

Design and Equipment Design

There is significant research indicating (1) rider contact with the motorcycle fuel tank is a major cause of pelvic injury in motorcycle crashes and (2) these crashes predominantly occur in frontal or oblique collision configurations. There is mixed information regarding the contribution of the "high-rising" tank typical to sport bikes or the rider position of a cruiser.

This issue, to the best of our knowledge, has not been addressed in the U.S. motorcyclist safety world (i.e., not a part of rider training programs and not addressed at U.S. motorcyclist safety conferences/forums). We believe it should be. Until issues are publicly discussed there is little likelihood they will be addressed. More research is necessary, and manufactures must be involved and take responsibility for improving designs.

Equipment

Improvements in design and equipment are the major factors in the reduction in death and injuries from automobile crashes experienced over the recent 2 to 3 decades. Leadership from manufactures, combined with required federal standards, seems to account for these changes. This is not true for motorcycles or true only to a limited extent.

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The U.S. benefits from EU and other country requirements (ABS and stability control, for example) but the U.S. DOT, state governments and U.S. motorcyclist safety advocates seem to be simply sideline observers.

This hands-off position needs to change, beginning with motorcyclist safety advocates, including individuals, organizations and state motorcyclist safety program coordinators. Advances in technology, design and equipment hold one of the quickest and easiest roads to reduction in crash risk.

Helmets and helmet laws

A no-brainer as has been said many times. The research in this area is overwhelming and undeniable, yet from a safety perspective the movement is backward. Under pressure from “rights” organizations, and contrary to reason and research, states have repealed their all-rider helmet requirements.



On many occasions in recent years SMARTER has partnered with Advocates for Highway and Auto Safety to advocate for the enactment of an all-rider helmet requirement and oppose efforts to repeal such laws. Additional support for this advocacy comes from the medical field. Missing in this advocacy effort is, sadly, a broad coalition of motorcyclist and motorcyclist safety professional organizations. MSF doesn't get involved, SMSA doesn't get involved, and state motorcyclists safety program representatives have been involved only on a limited basis. In some states the law (or the interpretation of the law) prevents state program representatives from being involved in this advocacy.

The “rights” organizations falsely represent to elected officials that they represent all motorcyclists and present positions that do not include the overwhelming evidence for the effectiveness of helmet use, for the prevention and reduction of the severity of injuries, and for the prevention of death.

SMARTER and “Advocates” have had limited success. A broad united front representing motorcyclist safety professionals is necessary to confront and reverse this backward trend.

Lane splitting

Contrary to popular belief, developed from incorrect and inappropriate interpretation of the research regarding lane splitting, many people, including motorcyclist safety advocates, believe lane splitting is a safer option compared to remaining in the traffic lane. The research does NOT support lane splitting as a safer option compared to remaining in the designated lane.



Motorcyclist safety advocates must understand this conclusion and stop advocacy for splitting lanes based on safety. Lane splitting and/or filtering certainly have advantages for traffic flow but it is an error to advocate for passage of lane splitting laws based on the argument that lane splitting will save motorcyclists lives.

Licensing

There is no evidence that achieving current U.S. state licensing standards is a contributing factor to crash reduction. This is a complicated issue. There is extensive evidence that unlicensed riders are overrepresented in fatality data. We must understand that gaining a license in almost every U.S. state is a matter of demonstrating minimal physical operational skills. Failure to possess minimum operational skill is rarely identified as a crash causation factor. So, what explains the significant correlation of fatally injured riders and lack of an appropriate license?

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Common factors associated with fatally injured motorcyclists include excessive speed, hitting a solid object or vehicle, alcohol impaired, failure to wear a helmet and being unlicensed or inappropriately licensed. Of these factors, alcohol impaired and maybe excessive speed, contribute to causing the crash. Excessive speed, hitting a solid object or vehicle and failure to wear a helmet contribute to getting injured or suffering an injury causing death. Speeding, alcohol impairment and choosing to not wear a helmet are clearly irresponsible behaviors. Not being appropriately licensed certainly does not contribute to being injured and we believe does not contribute to causing the crash. Not being licensed is simply a “ride along” irresponsible choice. Riders know the law requires special licensing, they simply choose to ignore the law – they make an irresponsible choice – like riding impaired, not wearing a helmet and speeding.

Compared to most other countries (many of which we consider third world), getting a motorcycle license in the U.S. is an easy task. There is even an argument that the simplicity of getting a license may contribute to young and inexperienced riders being on the road and involved in crashes. We know from auto driver licensing practices that graduated licensing is a positive practice for reducing crashes for young and inexperienced drivers. Many countries have initiated graduated licensing systems, tiered licensing systems or a combination of both. Graduated and tiered are not the same systems and can be implemented individually or combined.

The research indicates a likelihood that improving (making more stringent/challenging) the U.S. motorcyclist licensing processes would produce a positive impact on crash rate, especially for young and inexperienced riders. Combining a training sequence in sync with the steps of the licensing system as has (is) being done in Australia, would be a logical implementation plan.

Motorist awareness

There are no direct evaluations of motorist awareness programs. However, the perception research indicates that traditional motorist awareness programs, like “Look twice to save a life” billboards and yard signs, have little or no chance of reducing the “Looked but failed to see” crash scenarios.

Without research (or even data analysis) states and organizations are likely wasting limited resources by funding such programs.

Perception

While every training program introduces issues regarding perception, how our eyes and mind work together, and the critical need to identify hazards, the research is leading us to conclude that training programs, if they are to have an impact on reducing crash risk, must significantly increase training in issues related to perception, judgement and responsible decision making.



The research we have posted in the PERCEPTION section is aimed at providing a foundational understanding of these issues.

Protective gear

Most motorcyclist safety efforts are aimed at the limited goal of reducing the number of crashes. While **reducing the number of crashes** must be ONE of the goals of comprehensive efforts, it is foolish to believe we can eliminate all crashes and therefore foolish not to include:

- **preventing deaths and injuries in the event of a crash and**
- **lessening the severity of injuries in the event of a crash**

as additional vital goals of comprehensive motorcyclist safety.

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Strong advocacy for motorcyclist specific protective gear must be a component of all motorcyclist safety programs. Long sleeve T-shirts and denim jeans do not qualify. “Do as I do” is a long-standing accepted teaching tool, which means motorcyclist safety advocates and rider training instructors must wear full motorcyclist specific protective gear when interacting with students or representing their profession. Half-helmets and certainly novelty helmets are not acceptable gear for rider training professionals or students participating in a course.

Roads

The Federal Highway Administration (FHWA) Motorcyclist Advisory Council (MAC) in 2020 provided advice and recommendations concerning infrastructure issues related to motorcyclist safety including

1. barrier design
2. road design, construction, and maintenance practices, and the
3. architecture and implementation of intelligent transportation system technologies

The MAC has identified recommendations to address the above issues of concern for motorcyclists. FHWA intends to make motorcycling safer through the implementation of these recommendations.

Training

Reviews of the rider training literature show that there is no consensus for the validity of the common assumption that trained riders have fewer crashes. On the basis of the currently available literature, the assumption that training decreases crash involvement cannot be wholly accepted as true.

Current rider training in the U.S. focuses on operational skill development, primarily basic operational skills. There is little or no evidence to indicate that absence of basic operational skills is a common or significant contributor to crash causation.

Riders crash because they take unnecessary risks, make poor decisions like drinking and riding, act (ride) in an irresponsible manner, and fail to recognize hazards or don't recognize developing hazards soon enough.

While skills like countersteering to negotiate a curve or countersteering to swerve to avoid a hazard and advanced quick stopping (braking) certainly have potential to be lifesaving, it is often difficult for riders to correctly execute these skills in emergency/panic situations. In addition, the research indicates that even if riders possess and can proficiently execute these skills, they often do not have enough time to do so.

Rider training is certainly very good at teaching new riders basic skills and there are many reasons for riders to receive training. The big question is “Does rider training reduce crash risk?” The research does not wholly support a “yes” answer to that critical question (<https://smarter-usa.org/research/training/>).

Based on the research, rider training should develop curricula with (1) increased focus on attitudes toward risk taking, (2) more focus on decision making and responsibility and (3) increased focus and time dedicated to hazard perception.

Designing training in cooperation with (in sync with) tiered/graduated licensing systems which offer a progression from parking lot to on-road riding and developing riding in traffic skills through on-road experience, seems indicated by the research.

If the goal of government sponsored programs is to reduce crash risk, then government sponsored basic rider programs should consider allocating resources to alternative countermeasures and leave the training of physical skill (especially the basics) to private vendors.

Research Reports Posted in 2020

During 2020 we added a total of sixty-four (64) research reports to nine (9) different research sections. Twenty-two (22) of the sixty-four studies were published during the past three years.

As noted above, the effectiveness of *helmet use and the effectiveness of all-rider helmet regulation* is extensively documented so there is not much new research on this topic. The exception is research specifically related to the repeal of the Michigan all-rider helmet requirement in April of 2020. There are seven (7) research reports addressing the negative impact of the repeal of Michigan's all-rider helmet use requirement published between 2014 and 2020 – the latest two (2) studies we posted in 2020. We believe this makes Michigan's law change the most researched of any state. In addition to this published research, an expert economic impact analysis is available – access at

<https://smarter-usa.org/wp-content/uploads/2018/03/1e.-Estimate-of-Reductions-in-Deaths-Injuriesd-and-Societal-Costs-Societal-Cost-in-2015-Michigan-Motorcycle-Crashes-with-Helmet-Use-2017-2015-Data.pdf>

and a comprehensive summary and analysis of Michigan crash data:

<https://smarter-usa.org/wp-content/uploads/2020/11/Charts-2020-Michigan-Motorcyclist-Crash-and-Fatality-Data-and-Charts-Nov.-2020-data-through-Oct.-2020-1.pdf>

This entire **PERCEPTION** section is new in 2020. This is a vital area of research especially as connected to discussions related to training and conspicuity. Problems in *perception, judgment and decision making* are the areas that are usually listed as crash causation factors. We have nearly 40 research reports in this section: <https://smarter-usa.org/research/perception/>

Other Website Updates in 2020



We are regularly updating all pages of our site when we learn of new information. A good example is MotoCAP, or the Motorcycle Clothing Assessment Program, which is a consumer information program designed to provide riders with scientifically-based information on the relative protection and comfort on a range of motorcycle protective jackets, pants and gloves available in Australia and New Zealand (many tested products are available

worldwide). MotoCAP's aim is to empower motorcyclists to choose the right gear that provides them with the best protection and comfort for their ride. The right gear can greatly reduce the likelihood of permanent injuries from a crash and shorten hospital recovery times. Information regarding the MotoCAP program has been added to the GEAR-PROTECTIVE GEAR section of our site here: <https://smarter-usa.org/gear/full-protective-outer-gear/>

Work in Progress

Our work developing the PERCEPTION section led us to UK motorcyclist, motorcyclist safety advocate, researcher and writer Kevin Williams. Kevin has organized an extensive body of research-based information he has titled "The Science of Being Seen." We have most, if not all, of the research Kevin cites in his writing posted in our PERCEPTION section.

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